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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,910	07/11/2001	Haodong Li	PF126P2	7856

22195 7590 06/30/2004

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EXAMINER

GIBBS, TERRA C

ART UNIT PAPER NUMBER

1635

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

9A.

Office Action Summary

Application No.

09/901,910

Applicant(s)

LI ET AL.

Examiner

Terra C. Gibbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 28-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-14 and 28-56 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is a response to Applicants Remarks and Amendment, filed April 19, 2004.

Claims 15-27 have been canceled. Claims 1, 14, and 36 have been amended. New claims 53-56 are acknowledged.

Claims 1-14 and 28-56 are pending in the instant application.

Applicant's amendment necessitated the new ground(s) of restriction presented in this Office action.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Pursuant to 35 U.S.C. 121 and 37 C.F.R. 1.141, the polynucleotides encoding SEQ ID NOs: 2, 7, the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804, and a CTGF-2 polypeptide fragment with angiogenic activity, as recited in claim 1 are subject to restriction. The Commissioner has partially waived the requirements of 37 C.F.R. 1.141 and will permit a reasonable number of nucleotide sequences to be claimed in a single application. Under this policy, up to 10 of independent and distinct nucleotide sequences will be examined in a single application. (see MPEP 803.04 and 2434).

Claim 1 has been newly amended to read on a method of stimulating angiogenesis in a mammal, comprising administering a polynucleotide selected from the group consisting of (a) a polynucleotide encoding SEQ ID NO:2, (b) a polynucleotide encoding SEQ ID NO:7; (c) a polynucleotide encoding the CTGF-2 polypeptide encoded by the cDNA contained in ATCC

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Deposit No. 75804; and (d) a polynucleotide encoding a CTGF-2 polypeptide fragment with angiogenic activity.

In the previous Office Action, filed on July 29, 2003, Applicants received a search and examination on the invention drawn to a method of stimulating angiogenesis in a mammal, comprising administering a polynucleotide encoding CTGF-2, or an active fragment or derivative thereof. Claim 1 has been newly amended to recite specific enumerations of a polynucleotide encoding SEQ ID NOs: 2 and 7, the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804, and a CTGF-2 polypeptide fragment with angiogenic activity. It is noted that a polynucleotide encoding SEQ ID NO:2 and the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804 are essentially the same embodiment, and are thus related. Additionally, a CTGF-2 polypeptide fragment with angiogenic activity is encompassed within the embodiments of a polynucleotide encoding SEQ ID NO:2, and the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804, and are thus related. However, a polynucleotide encoding SEQ ID NO:7 appears to be structurally and functionally independent from the polynucleotide encoding SEQ ID NO:2, the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804, and the CTGF-2 polypeptide fragment with angiogenic activity for the following reasons:

The specification has provided an isolated nucleic acid (SEQ ID NO:1) which encodes for the polypeptide having the deduced amino acid sequence of Figures 1A-B (SEQ ID NO:2) or as encoded by the cDNA of the clone deposited as with the American Type Culture Collection (ATCC) as Deposit No. 75804. The specification has also provided an alternative cDNA sequence (SEQ ID NO:6) and corresponding deduced amino acid sequence (SEQ ID NO:7) of

CTGF-2 as demonstrated in Figures 11A-C. It appears that the deduced amino acid sequence of CTGF-2 (SEQ ID NO:2) and the corresponding deduced amino acid sequence of the CTGF-2 alternative sequence (SEQ ID NO:7) have unique amino acid sequences which encode very different nucleic acid sequences. Throughout the specification, and especially in the Examples, Applicants refer to the DNA sequence encoding the CTGF-2 protein, ATCC accession #75804. The instant disclosure is very vague regarding SEQ ID NO:7, and never elucidates where this protein comes from (e.g. ATCC accession number, mode of synthesis/isolation). The instant application has only described SEQ ID NO:7 as a "CTGF-2 alternative sequence". Since none of the claims as originally filed were drawn to a "CTGF-2 alternative sequence", SEQ ID NO:7 was not encompassed in the claims and therefore was not examined in any of the previous Office Actions. Thus, applicant's proposed amendment to newly recited polynucleotides, drawn to CTGF-2 alternative sequences would necessarily require a new sequence search to be performed.

In summary, since said polynucleotides have not been recited in any claims examined heretofore, the newly proposed claims specifying particular enumerations of polynucleotides would require a new search and raise new prior art issues not previously considered. Additionally, a search of more than one (1) of the polynucleotide sequences recited in claim 1 presents an undue burden on the Patent and Trademark Office due to the complex nature of the search and corresponding examination of more than one (1) of the claimed sequences. In view of the foregoing, one (1) sequence is considered to be a reasonable number of sequences for examination.

It is noted that claim 1 recites a method of administering a polynucleotide selected from the group consisting of (a) a polynucleotide encoding SEQ ID NO:2, (b) a polynucleotide

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encoding SEQ ID NO:7; (c) a polynucleotide encoding the CTGF-2 polypeptide encoded by the cDNA contained in ATCC Deposit No. 75804; and (d) a polynucleotide encoding a CTGF-2 polypeptide fragment with angiogenic activity. Since (a) is related to (c) and (d), the Examiner is not requiring restriction amongst (a), (c), and (d). However, because (b) is not at all related to (a), (c), or (d), (b) would necessarily require a new sequence search to be performed.

This is not a species requirement, but a restriction of distinct and independent inventions: unique and structurally distinct nucleotide sequences. Applicant is required to a single SEQ ID NO. as recited in claim 1.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terra C. Gibbs whose telephone number is (571) 272-0758. The examiner can normally be reached on M-F 9:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John L. LeGuyader can be reached on (571) 272-0760. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tcg
June 22, 2004



JOHN L. LeGUYADER
SUPERVISORY PATENT EXAMINER
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